

A NEW CORALLANID ISOPOD PARASITIC ON AUSTRALIAN  
FRESHWATER PRAWNS

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*Synopsis*

A second species of *Austroargathona* is described from inland New South Wales and Queensland. The species is parasitic on freshwater prawns of the genera *Macrobrachium* (Palaemonidae) and *Paratya* (Atyidae). The type species and only other described species is parasitic on the related prawns of the easterly flowing streams of coastal Queensland and New South Wales.

AUSTROARGATHONA PICTA, sp. nov.

(Figs 1-6)

*Non-ovigerous Female.* Length up to 11 mm. Very similar in general appearance to *caridophaga* Riek (Riek, 1953) but differing a little in colour intensity and pattern (Fig. 1). Median chromatophore band of pereaeon divided

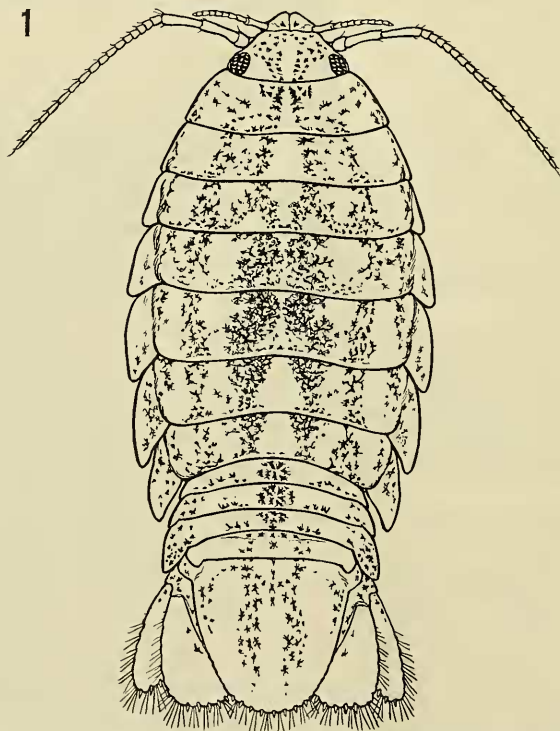
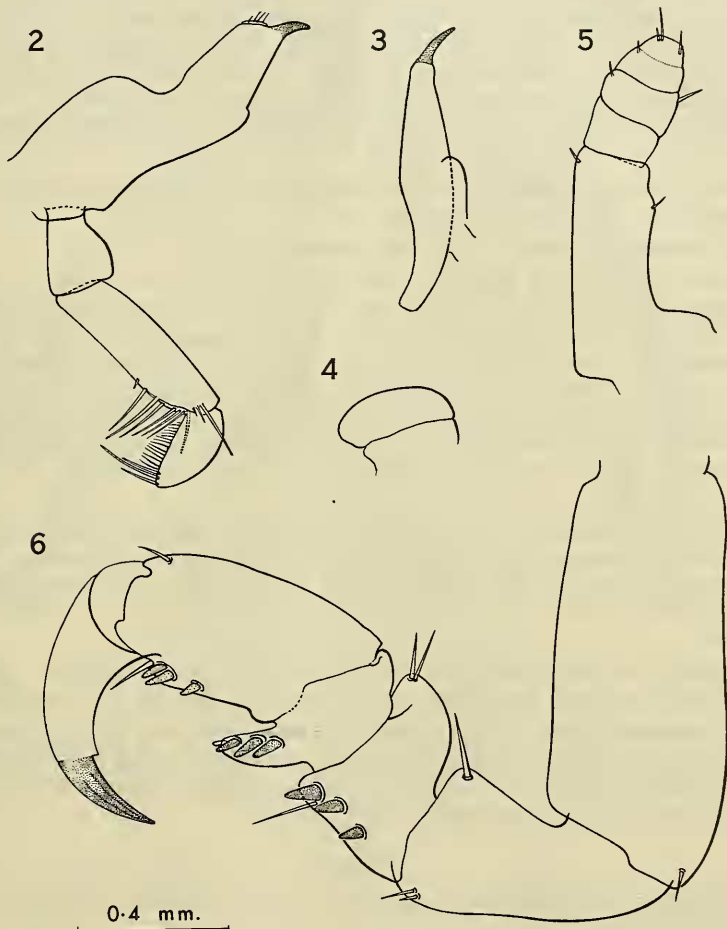


Fig. 1. *Austroargathona picta* sp. nov., Dorsal view  $\times 9$ .

except on the fourth segment so that there are six indistinct bands except on this one segment. The median two bands of the telson have almost merged so that the telson appears to have a single very wide median band, a distinct,

wide, light laterad area and narrow dark margin. The ramose chromatophores are uniformly pigmented and have sharply defined margins. The cephalon is relatively wider and the eyes less prominent and the lateral margins of the telson are more uniformly convex than in *caridophaga*. Mouthparts distinctive, mandible and second maxilla differing most from those of *caridophaga*.

First and second antenna very similar to those of *caridophaga*, but first article of peduncle of first antenna rather more expanded at base anteriorly; frontal lamina wedge-shaped with a slightly concaved anterior margin and tapering to a rounded point posteriorly; mandibular palp (Fig. 2) with basal



Figs 2-6. *Austroargathona picta* sp. nov. 2. Mandible. 3. First maxilla. 4. Second maxilla. 5. Maxilliped. 6. First peripod.

segment expanded, wider than the following segment, second segment with two series of apical spines, an outer marginal series of seven stout subequal spines, the second the longest, the others gradually shortening distally, but each at least as long as the width of the segment, a very small spine proximal to this series, also a series of three apical spines on the ventral side of the segment, the anterior one much the longest and as long as those of the marginal series, posterior margin of apical segment with a series of about eighteen setae, the distal three very long and stout, with the middle one of these three almost as long as the segment; mandible without a well developed cutting edge, apex

produced into an acute, stout, dark-coloured spine and bearing a series of four fine spines on the median side at the base of the terminal spine, the innermost spine the finest. These spines are less than half the length of the terminal spine and are very fine and transparent. In the description of *caridophaga* the mandible and its palp were inadequately described. They are similar to those in the present species, but the apical spine of the mandible is relatively smaller, and there are apparently only two shorter but stouter mesal spines on the much more narrowed apical lobe. First maxilla (Fig. 3) with tapering base, outer lobe tapering to the acute, distinctly curved, terminal unguis, inner lobe small, rather narrow and with incurved, apex; second maxilla (Fig. 4) small, anterior margin rounded, slightly expanded on the median side (in *caridophaga* the muscle fibres of attachment were confused with the basal structure of the second maxilla so that the structure in the two species is more similar than would appear from the original figures). Coxal plates not quite as acutely pointed and their outer margins more crenulated than in *caridophaga*. Maxilliped (Fig. 5) and first periopod (Fig. 6) similar to those of *caridophaga* but palp of maxilliped more clearly 4-segmented.

*Types*.—Holotype non-ovigerous female and paratype non-ovigerous females in the Australian Museum Collection.

*Type Locality*.—Darling River at Bourke, N.S.W.

*Distribution*.—Darling River at Bourke, N.S.W. (7 Dec. 1959, V. McCristal, 29 Mar. 1960, N. E. Milward and 17 Mar. 1961, J. A. Bishop); Darling River near Gundabooka Bridge (18 Mar. 1961, J. A. Bishop); Darling River, 140 miles downstream from Bourke (18 Mar. 1961, J. A. Bishop); Darling River near Tilpa (19 Mar. 1961, J. A. Bishop); Bogan River, 2 miles e. west of Tarcoon, N.S.W. (23 Mar. 1960, N. E. Milward); Condamine, Q'ld. (10 Apr. 1957, E. F. Riek); Namoi River, near Narrabri, N.S.W. (May, 1961, W. D. Williams); Boonoo Boonoo River, near Tenterfield, N.S.W. (24 May 1961, W. D. Williams), parasitic on cat-fish.

*Hosts*.—Ectoparasitic on the freshwater prawns *Macrobrachium australiense cristatum* Riek (Palaemonidae) and an undescribed species of *Paratya* (Atyidae). Only at Condamine did the species occur on *Paratya*. The host prawns are restricted to freshwaters. The cat-fish is very probably not a normal host of the species.

The paratypes are all considerably smaller than the holotype. They differ in having only a single fine spine on the median side of the mandible.

It is considered that this species of *Austroargathona* will be found to be widespread in the inland flowing streams of Queensland and New South Wales, for during flooding there is extensive interconnection between the streams. At least one of the host prawns is widespread.

#### Reference

- RIEK, E. F., 1953.—A corallanid isopod parasitic on freshwater prawns in Queensland. *PROC. LINN. SOC. N.S.W.*, 77: 259–261.